

AN ROINN OIDEACHAIS.

AN BRAINSE GAIRM-OIDEACHAIS.

CERTIFICATE EXAMINATIONS

for

DAY VOCATIONAL COURSES, 1953.

MECHANICAL DRAWING.

Tuesday, June 23rd—10 a.m. to 12.30 p.m.

INSTRUCTIONS.

(a) *Not more than four* questions may be attempted, *two* of these must be selected from *Section A* and two selected from *Section B*. Draw questions from *Section A* on one sheet of paper, and questions from *Section B* on a *separate* sheet.

(b) A maximum of *ten* marks will be awarded for accuracy and neatness of arrangement.

(c) The number of the question must be distinctly marked by the side of each answer.

(d) Work on one side of the paper only.

(e) Examination Number must be distinctly marked on *each* sheet of drawing paper.

SECTION A.

1. Figure I shows a pictorial view of a "PIPE SUPPORT". Draw the following views of the object to a scale of *half full size*:—

(a) A front elevation looking in the direction A.

(b) A side elevation looking in the direction B.

(c) A plan projected from the front elevation.

Show four of the main dimensions and the title "PIPE SUPPORT" in $\frac{1}{4}$ in. letters.

[25 marks.]

[P.T.O.]

2. From the elevation and plan of the object shown in figure 2, construct an oblique view.

[25 marks.]

3. Figure 3 shows the elevation and plan of a square prism and cylinder. Draw, full size, these two views and *also* an end elevation, looking from right to left, *along the section line AA*.

[25 marks.]

4. A pictorial view of a tin dish is shown in figure 4. The dish is to be made from a development which is bent and joined at the meeting edges. Draw the development, *full size*, but make no allowance for laps.

[25 marks.]

SECTION B.

5. The outline of a machine guard to cover three wheels, of equal diameter, is shown in fig. 5.

Construct this figure *full size* and show all construction lines clearly.

[Circles touching one another].

[20 marks.]

6. Draw a figure *similar* to figure 6, but having a perimeter of 11 inches instead of the perimeter of the figure shown. Measure and mark on the dimensions of the new figure in *inches and decimals of an inch*.

[Proportional division of lines.]

[20 marks.]

7. Construct the pattern shown in figure 7 which is to be cut out of a circular piece of plywood. Measure and mark on the diameter of the circle D inches.

[Chords of a circle.]

[20 marks.]

8. Draw a regular hexagon of side 3 inches and inscribe in it an equilateral triangle.

Compare the areas of the triangle and hexagon and *write down* their relationship as a *ratio*.

[20 marks.]

